

**EXPLANATORY**

## AMENDMENTS TO CLAIMS:

1. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein there are stress release portions at least partially ~~in said peripheral wall layer and/or~~ between said peripheral wall layer and said grooves.
2. (new): The ceramic honeycomb structure according to claim 1, which further has stress release portions at least partially in said peripheral wall layer.
23. (currently amended): The ceramic honeycomb structure according to claim ~~12~~, wherein said stress release portions are voids provided in said peripheral wall layer such that they are open on a periphery thereof.
34. (currently amended): The ceramic honeycomb structure according to claim ~~23~~, wherein the total length of said voids is equal to or larger than the full length of said ceramic honeycomb structure.
45. (currently amended): The ceramic honeycomb structure according to claim ~~23~~, wherein voids provided in said peripheral wall layer are in the form of a slit.
56. (currently amended): The ceramic honeycomb structure according to claim ~~23~~, wherein voids provided in said peripheral wall layer are cracks in said peripheral wall layer.

67. (currently amended): The ceramic honeycomb structure according to claim 1, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

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78. (currently amended): The ceramic honeycomb structure according to claim 67, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

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9. (new): The ceramic honeycomb structure according to claim 7, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

15 10. (new): The ceramic honeycomb structure according to claim 2, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

11. (new): The ceramic honeycomb structure according to claim 10,  
20 wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

812. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell  
25 walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein the thermal expansion coefficient of said peripheral wall layer is smaller than those of said cell walls

in a radial direction,

wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of  $10.0 \times 10^{-7}/^{\circ}\text{C}$  or less.

913. (currently amended): The ceramic honeycomb structure according to claim 812, comprising stress release portions at least partially ~~in said peripheral wall layer and/or between said peripheral wall layer and said~~ grooves.

Claims 10-13: Canceled.

14. (currently amended): The ceramic honeycomb structure according to claim 913, wherein said stress release portions are voids provided between said peripheral wall layer and said grooves.

15. (previously presented): The ceramic honeycomb structure according to claim 14, wherein the number of grooves having said voids between said peripheral wall layer and said grooves is 5% or more of the number of the total grooves.

16. (new): The ceramic honeycomb structure according to claim 14, wherein the total length of a contact portion of the grooves with the peripheral wall layer is 95% or less based on the total length of the grooves.

~~16~~17. (currently amended): A ceramic honeycomb structure comprising a

ceramic honeycomb body comprising axial grooves on its periphery and cell walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, said ceramic honeycomb body being obtained by removing a peripheral wall and nearby cell walls before firing.

18. (new): The ceramic honeycomb structure according to claim 17, wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of  $10.0 \times 10^{-7}/^{\circ}\text{C}$  or less.

19. (new): The ceramic honeycomb structure according to claim 17, wherein there are stress release portions at least partially between said peripheral wall layer and said grooves.

20. (new): The ceramic honeycomb structure according to claim 19, which further has stress release portions at least partially in said peripheral wall layer.

~~1721.~~ (currently amended): The ceramic honeycomb structure according to claim 1, wherein said peripheral wall layer is formed before or after firing said ceramic honeycomb body.

~~1822.~~ (currently amended): The ceramic honeycomb structure according to claim ~~1721~~, wherein said ceramic honeycomb structure has an isostatic strength of 1.5 MPa or more.

23. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 1.

5 24. (new): A particulates-capturing filter using a ceramic honeycomb structure according to claim 7.

1925. (currently amended): The ceramic honeycomb structure according to any one of claims 1 to 1824, wherein said cell walls of said ceramic  
10 honeycomb structure have a porosity of 50 to 80% and an average pore size of 10 to 50  $\mu\text{m}$ .

2026. (currently amended): A ceramic honeycomb structure comprising a ceramic honeycomb body comprising axial grooves on its periphery and cell  
15 walls constituting a larger number of flow paths inside said grooves, and a peripheral wall layer covering said grooves, wherein said peripheral wall layer is made of a mixture comprising amorphous silica particles and an amorphous oxide matrix, and wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina, and  
20 wherein said peripheral wall layer has a composition comprising 100 parts by mass of amorphous silica and 2 to 35 parts by mass of an amorphous oxide matrix and said amorphous silica has a thermal expansion coefficient of  $10.0 \times 10^{-7}/^{\circ}\text{C}$  or less.

25 21. (canceled). ~~The ceramic honeycomb structure according to claim 20, wherein said amorphous oxide matrix is formed from colloidal silica and/or colloidal alumina.~~

22. (canceled). ~~The ceramic honeycomb structure according to claim 20,~~  
~~wherein said peripheral wall layer has a composition comprising 100 parts by~~  
~~mass of amorphous silica particles and 2 to 35 parts by mass of an amorphous~~  
5 ~~oxide matrix.~~

Claims 23-26: Withdrawn.

27. (currently amended): A coating material for forming a peripheral  
10 wall layer of a ceramic honeycomb structure, comprising 100 parts by mass of  
amorphous silica ~~particles~~ and 2 to 35 parts by mass (on a solid basis) of  
colloidal silica and/or colloidal alumina, wherein said amorphous silica has a  
thermal expansion coefficient of  $10.0 \times 10^{-7}/^{\circ}\text{C}$  or less, an average particle  
size of 1 to 100  $\mu\text{m}$  and an aspect ratio of 10 or less.